dust control measures shall be used when drilling water-soluble material.

§ 72.630 Drill dust control at underground areas of underground mines.

(a) Dust resulting from drilling in rock shall be controlled by use of permissible dust collectors, or by water, or water with a wetting agent, or by ventilation, or by any other method or device approved by the Secretary that is as effective in controlling the dust.

(b) *Dust collectors.* Dust collectors shall be maintained in permissible and operating condition. Dust collectors approved under Part 33—Dust Collectors for Use in Connection with Rock Drilling in Coal Mines of this title or under Bureau of Mines Schedule 25B are permissible dust collectors for the purpose of this section.

(c) *Water control.* Water used to control dust from drilling rock shall be applied through a hollow drill steel or stem or by the flooding of vertical drill holes in the floor.

(d) *Ventilation control.* To adequately control dust from drilling rock, the air current shall be so directed that the dust is readily dispersed and carried away from the drill operator or any other miners in the area.

§ 72.710 Selection, fit, use, and maintenance of approved respirators.

In order to ensure the maximum amount of respiratory protection, approved respirators shall be selected, fitted, used, and maintained in accordance with the provisions of the American National Standards Institute's ''Practices for Respiratory Protection ANSI Z88.2–1969,'' which is hereby incorporated by reference. This publication may be obtained from the American National Standards Institute, Inc., 25 W. 43rd Street, 4th Floor, New York, NY 10036; *http://www.ansi.org*, and may be inspected at any MSHA Coal Mine Safety and Health district office, or at MSHA's Office of Standards, Regulations, and Variances, 1100 Wilson Blvd., Room 2352, Arlington, Virginia 22209–3939, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html*. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51.

[60 FR 30401, June 8, 1995, as amended at 67 FR 38386, June 4, 2002; 71 FR 16668, Apr. 3, 2006]

PART 74—COAL MINE DUST SAMPLING DEVICES

Subpart A—General

Subpart B—Approval Requirements for Coal Mine Dust Personal Sampler Unit

Subpart C—Requirements for Continuous Personal Dust Monitors (CPDMs)

Subpart D—General Requirements for All Devices

AUTHORITY: 30 U.S.C. 957.

SOURCE: 75 FR 17523, Apr. 6, 2010, unless otherwise noted.

Subpart A—General

§ 74.1 Purpose.

The regulations in this part set forth the requirements for approval of coal

mine dust sampling devices for determining the concentrations of respirable dust in coal mine atmospheres; procedures for applying for such approval; test procedures; and labeling.

§ 74.2 Definitions.

(a) *Accuracy:* the ability of a continuous personal dust monitor (CPDM) to determine the ''true'' concentration of the environment sampled. Accuracy describes the closeness of a typical measurement to the quantity measured, although it is defined and expressed in terms of the relative discrepancy of a typical measurement from the quantity measured. The accuracy of a CPDM is the theoretical maximum error of measurement, expressed as the proportion or percentage of the amount being measured, without regard for the direction of the error, which is achieved with a 0.95 probability by the method.

(b) *Bias:* the uncorrectable relative discrepancy between the mean of the distribution of measurements from a CPDM and the true concentration being measured.

(c) *Coal mine dust personal sampler unit (CMDPSU):* a personal device for measuring concentrations of respirable dust in coal mine atmospheres that meets the requirements specified under Subpart B of this part.

(d) *Continuous personal dust monitor (CPDM):* a sampling device for continuously measuring concentrations of respirable dust in coal mine atmospheres that reports within-shift and end-of shift measurements of dust concentrations immediately upon the completion of the period of exposure that was monitored and that meets the requirements specified under Subpart C of this part.

(e) *ISO:* the International Organization for Standardization, an international standard-setting organization composed of representatives from various national standards-setting organizations. ISO produces industrial and commercial voluntary consensus standards used worldwide.

(f) *Precision:* the relative variability of measurements from a homogeneous atmosphere about the mean of the population of measurements, divided by the mean at a given concentration. It reflects the ability of a CPDM to replicate measurement results.

Subpart B—Approval Requirements for Coal Mine Dust Personal Sampler Unit

§ 74.3 Sampler unit.

A CMDPSU shall consist of:
(a) A pump unit,
(b) A sampling head assembly, and
(c) If rechargeable batteries are used in the pump unit, a battery charger.

§ 74.4 Specifications of sampler unit.

(a) *Pump unit:*

(1) *Dimensions.* The overall dimensions of the pump unit, hose connections, and valve or switch covers shall not exceed 4 inches (10 centimeters) in height, 4 inches (10 centimeters) in width, and 2 inches (5 centimeters) in thickness.

(2) *Weight.* The pump unit shall not weigh more than 20 ounces (567 grams).

(3) *Construction.* The case and all components of the pump unit shall be of sufficiently durable construction to endure the wear of use in a coal mine, shall be tight fitting to minimize the amount of dust entering the pump case, and shall be designed to protect against radio frequency interference and electromagnetic interference.

(4) *Exhaust.* The pump shall exhaust into the pump case, maintaining a slight positive pressure which will reduce the entry of dust into the pump case.

(5) *Switch.* The pump unit shall be equipped with an ON/OFF switch or equivalent device on the outside of the pump case. This switch shall be protected against accidental operation during use and protected to keep dust from entering the mechanisms.

(6) *Flow rate adjustment.* Except as provided in the last sentence of this paragraph, the pump unit shall be equipped with a suitable means of flow rate adjustment accessible from outside the case. The flow rate adjuster shall be recessed in the pump case and protected against accidental adjustment. If the pump is capable of maintaining the flow rate consistency required in this part without adjustment, an external flow rate adjuster is not required.